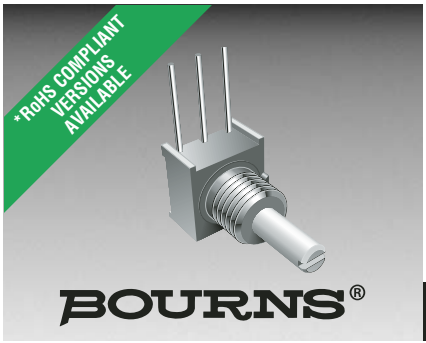


Features

- Miniature package for design flexibility
- Long operating life
- Conductive plastic element
- Bushing or PC board mount
- Quadrature output
- RoHS compliant versions available*

3315 - 9 mm Square Sealed Incremental Encoder

Electrical Characteristics

Output ..... 2-bit gray code, Channel A leads Channel B electrically turning clockwise (CW)
Closed Circuit Resistance ..... 5 ohms maximum
Contact Rating ..... TTL compatible loads
Insulation Resistance (500 VDC) ..... 1,000 megohms minimum
Dielectric Withstanding Voltage
  Sea Level ..... 900 VAC minimum
Electrical Travel ..... Continuous
Contact Bounce ..... 5 milliseconds maximum
RPM (Operating) ..... 120 maximum

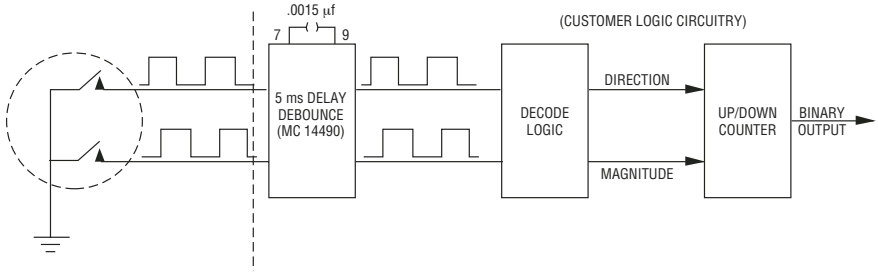
Environmental Characteristics

Operating Temperature Range ..... -40 °C to +125 °C (-40 °F to +257 °F)
Storage Temperature Range ..... -55 °C to +125 °C (-67 °F to +257 °F)
Humidity ..... MIL-STD-202, Method 103B, Condition B
Vibration ..... 30 G
  Contact Bounce ..... 5.0 millisecond maximum
Shock ..... 100 G
  Contact Bounce ..... 5.0 millisecond maximum
Rotational Life ..... 100,000 cycles @ 6 PPR
  25,000 cycles @ 16 PPR
IP Rating ..... IP 67

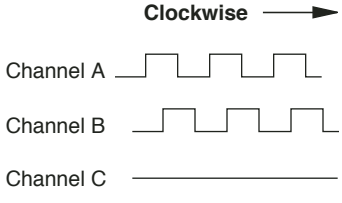
Mechanical Characteristics

Mechanical Angle ..... 360 ° Continuous
Running Torque ..... 3.53 N-cm (5 oz.-in.) maximum
Mounting Torque
  Plastic Bushing ..... 45.19 N-cm (4.0 lb.-in.) maximum
  Metal Bushing ..... 79 N-cm (7.0 lb.-in.) maximum
Weight ..... 4.5 gm (0.15 oz.)
Terminals ..... Solderable pins
  Soldering Condition
    Manual Soldering ..... 96.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire; 370 °C (700 °F) max. for 3 seconds
    Wave Soldering ..... 96.5Sn/3.0Ag/0.5Cu solder with no-clean flux; 260 °C (500 °F) max. for 5 seconds
    Wash Processes ..... For recommended wash processes, please refer to http://www.bourns.com/pdfs/sldclen.pdf
Marking ..... Manufacturer's trademark, part number, and date code
Hardware ..... One lockwasher and one mounting nut are shipped with each encoder, except where noted in the part number.

Suggested Incremental Control Diagram



Quadrature Output Table



*RoHS Directive 2002/95/EC Jan 27 2003 including Annex
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

3315 - 9 mm Square Sealed Incremental Encoder

BOURNS®

Part Numbering System

3315 Y - 0 0 1 - 006 L

Model Number Designator
- 3315 = 9 mm Encoder

Terminal Style Designator
- C = In-line Straight Terminals Side Exit
- R = In-line Terminals Rear Exit
- P = 5.08 mm x 2.54 mm Triangular Pattern Rear Exit
- Y = 5.08 mm x 5.08 mm Triangular Pattern Rear Exit

Shaft End Designator
- 0 = Shaft End Slotted
- 1 = Shaft End Flatted

Shaft Length Designator
- 0 = 12.7 mm FMS Long Plastic Shaft (Available w/bushing only)
- 1 = 19.05 mm FMS Long Plastic Shaft (Available w/bushing only)
- 2 = 5.59 mm FMS (Bushingless version only)

Bushing Designator
- 1 = 6.35 mm x 6.35 mm Plastic
- 2 = 6.35 mm x 6.35 mm Ni Plated Brass
- 5 = Bushingless (Board Level)

Pulses per Revolution Code
- 006 =6 PPR
- 016 =16 PPR

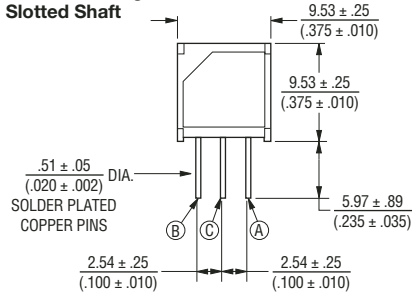
Terminals
- L = RoHS compliant (100 % tin plated finish)
- Blank = Standard (tin/lead plated finish)

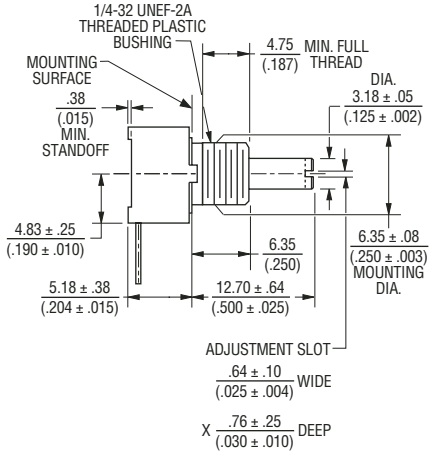
Product Dimensions

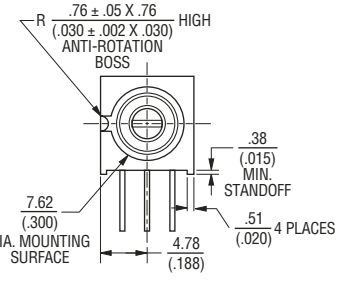
COMMON DIMENSIONS

3315-001

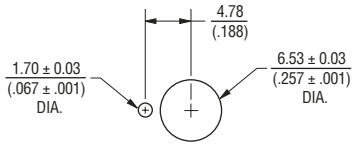
Plastic Bushing
Slotted Shaft



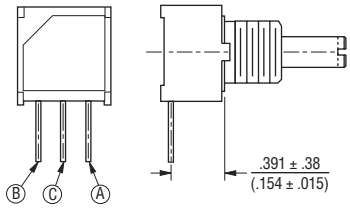




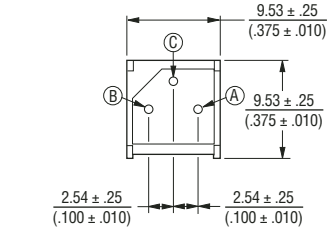
MOUNTING HOLE PATTERN

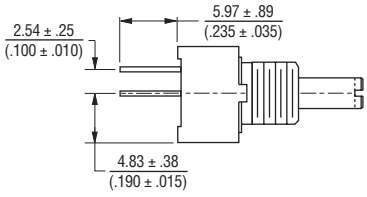


3315C-001

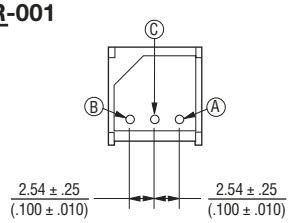


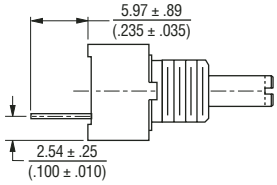
3315P-001



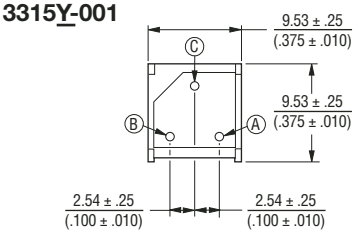


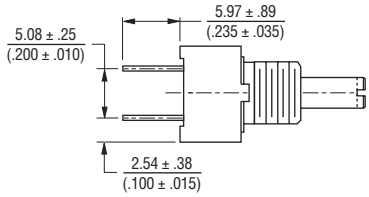
3315R-001





3315Y-001

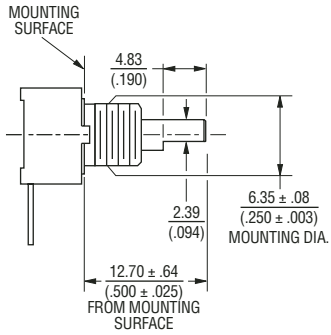


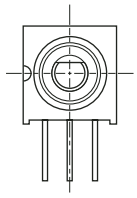


COMMON DIMENSIONS

3315C-101

Plastic Flatted Shaft

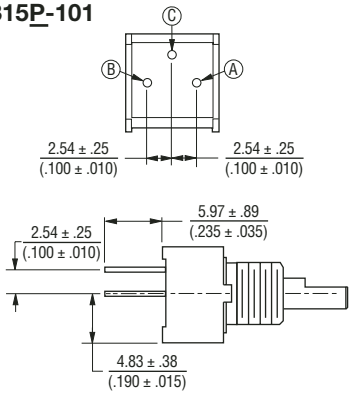




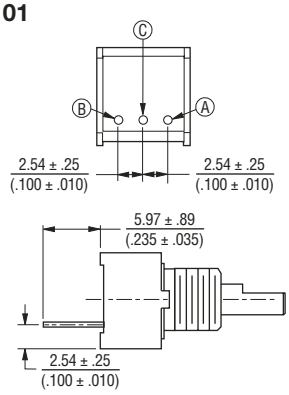
DIMENSIONS: MM / (IN.)

Product Dimensions

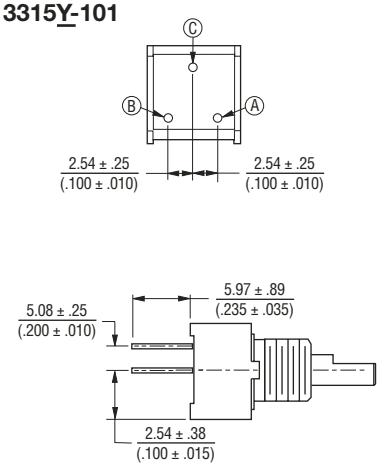
3315P-101



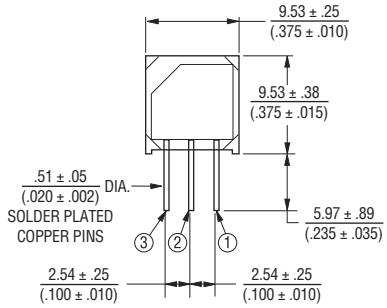
3315R-101

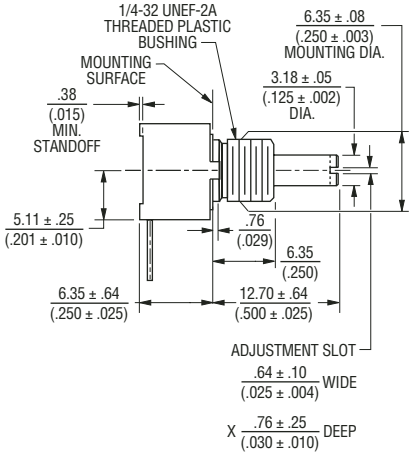


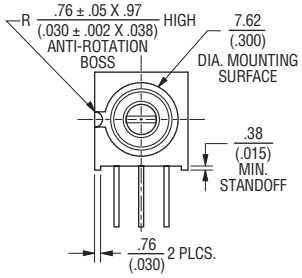
3315Y-101



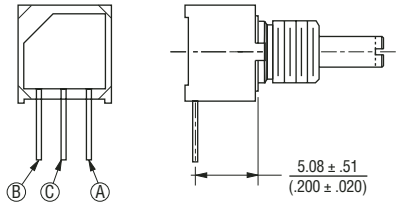
COMMON DIMENSIONS
3315-002
Metal Bushing



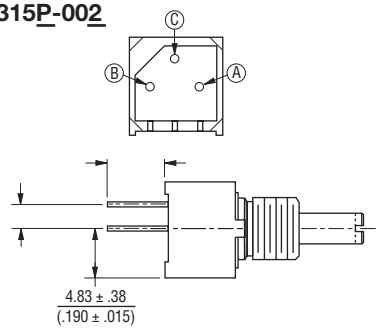




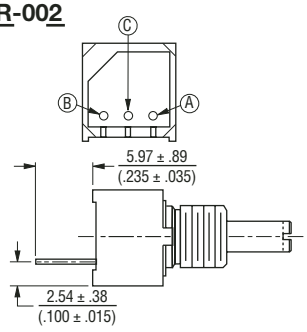
3315C-002



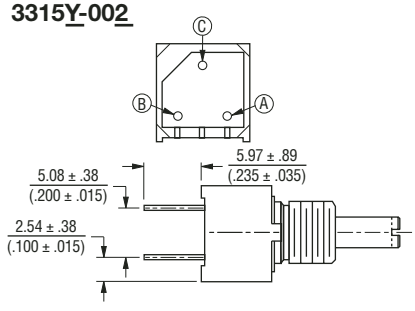
3315P-002



3315R-002



3315Y-002

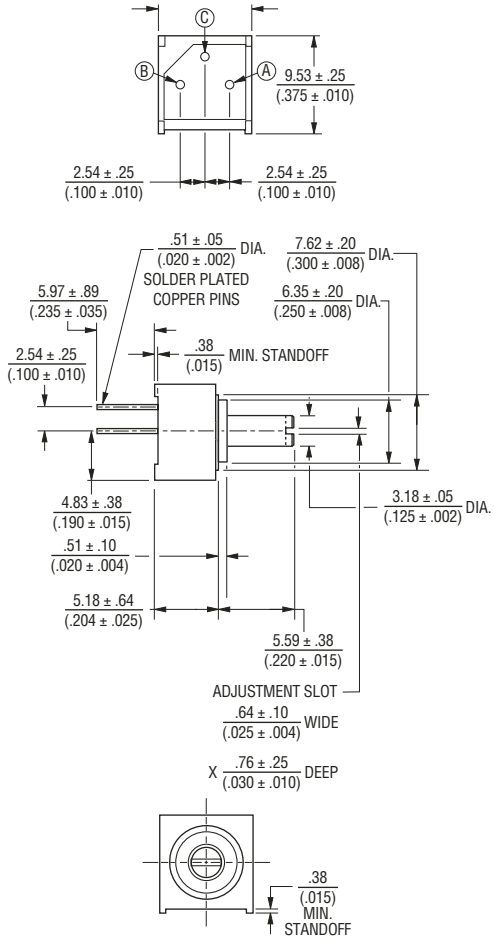


DIMENSIONS: MM / (IN.)

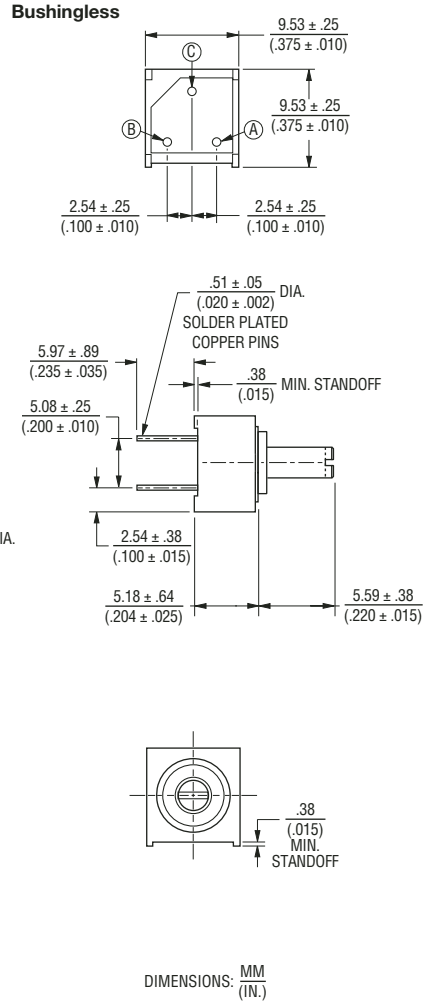
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Product Dimensions

3315P-025
Bushingless



3315Y-025
Bushingless



DIMENSIONS: MM / (IN.)